

## WHAT IS VASCULAR ACCESS?

Vascular and access are medical words that mean “a way to get to your blood”. Vascular = blood and access = a way to get there. For you to be able to receive hemodialysis, blood needs to be able to leave your body, travel to the artificial kidney (dialyzer) and return to your body. Other words for vascular access are:

- dialysis access
- access

There are 3 kinds of vascular access:

- fistula
- graft
- catheter

Many people use the word “graft” as a general word to identify a vascular access, that word is incorrect. All accesses are created differently.

A **fistula** is the second most common but is the best type of access for most people. A fistula is made with the person’s own vein and artery. During surgery, a vein is connected to a nearby artery. After the vein and artery are connected, the stronger flow of blood from the artery takes a “detour” through the vein. The stronger flow of blood going through the vein makes the vein get larger. Fistulas take longer to mature and when new, are more difficult to place needles in. The area around the new fistula will tend to bruise more from bleeding under the skin.

In the long run, fistulas last longer, have fewer complications and are less likely to clot or get infected.

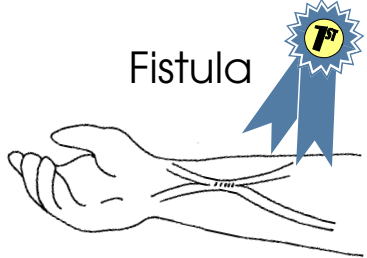

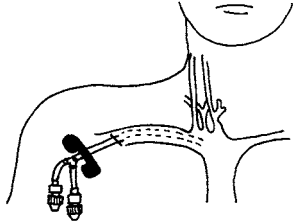
The most common type of access is a *graft*. It is made using a small, soft plastic-like tube. During surgery, one end of the tube (graft) is sewed into an artery and the other end of the tube is sewed into a vein. The graft is sewed to the artery and vein under the skin. It can be placed in a straight line or in a loop. Grafts are more likely to become infected and to form clots.

The least common type of access is a *catheter*. Catheters should be used only on a short-term basis or when no other access will work. It is a tube placed in a large vein in the neck, chest or groin area. These catheters have two parallel channels. The upper part of the catheter shows outside the skin, while the bottom part stays in the vein. Catheters in the groin are usually left in for a couple of days or treatments because of the risk of clotting and infection. Catheters often do not provide enough blood flow, causing dialysis treatments to be inadequate.

Your treatment team should be routinely monitoring your vascular access to make sure it is working right. Preventing problems with your vascular access will make it last longer, allow better dialysis, and reduce risk of infection.



# Vascular Access For Hemodialysis

Access Type	Location	Advantages	Disadvantages	Used For
 <p>Fistula</p>	<ul style="list-style-type: none"> <li>• Lower Arm</li> <li>• Upper Arm</li> <li>• Thigh</li> </ul>	<ul style="list-style-type: none"> <li>• Lasts a long time</li> </ul>	<ul style="list-style-type: none"> <li>• Must be allowed to mature or grow for 2 to 4 months before using</li> </ul>	<ul style="list-style-type: none"> <li>• Chronic Hemodialysis</li> </ul>
 <p>Graft</p>	<ul style="list-style-type: none"> <li>• Lower Arm</li> <li>• Straight or Loop</li> <li>• Upper Arm</li> <li>• Upper Leg</li> </ul>	<ul style="list-style-type: none"> <li>• Can be used within short period of time, 2 to 6 weeks after insertion</li> </ul>	<ul style="list-style-type: none"> <li>• Clotting</li> <li>• Stenosis (<i>narrowing of artery or vein</i>)</li> <li>• Swelling</li> <li>• Risk of Infection</li> <li>• Decreased blood flow to the hand</li> </ul>	<ul style="list-style-type: none"> <li>• Chronic Hemodialysis</li> </ul>
 <p>Catheter</p>	<ul style="list-style-type: none"> <li>• Neck (<i>jugular vein</i>)</li> <li>• Chest (<i>under collar bone or subclavian vein</i>)</li> <li>• Groin (<i>femoral vein</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Can be used immediately after insertion (<i>may need x-ray to check location</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Limited time for use</li> <li>• Clotting</li> <li>• Frequent Infection</li> <li>• Poor blood flow</li> <li>• Decreased adequacy of treatment</li> <li>• Damage to the vein</li> </ul>	<ul style="list-style-type: none"> <li>• Emergency Hemodialysis</li> <li>• Temporary use while fistula or graft are healing</li> </ul>